

CHRONIC HEADACHE  
AND ITS  
TREATMENT BY  
MASSAGE

BY  
GUSTAF NORSTRÖM, M. D.,  
OF  
THE FACULTY OF STOCKHOLM.

PROF. L. EDINGER, of Frankfort, Germany, the well-known specialist of nervous diseases, expresses himself as follows, in an exhaustive article on *headache and migraine*, published in the *Deutsche Klinik*: ". . . Formerly I did not cure any patients, but secured only temporary improvement in some. It was only when I learned that for the chronic cases there was but one remedy to be considered, namely *massage*, that a permanent cure was obtained. If I had been familiar with the works of the Swedes, Prof. Henschen, Helleday and Norström, earlier, I would have been of greater use to my patients. The works of these writers do not occupy that prominence in German literature which they really deserve."

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## CHRONIC HEADACHE IN ITS TREATMENT BY MASSAGE

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In April, 1885, I published my first work on the treatment of migraine by massage. In this little work, containing thirty-six observations of cases, most of which cases were my own, and the remainder taken from Henschen, Wretling, etc., I tried to show that many cephalalgias, usually collected under the same generic name, were secondary neuralgias, starting from chronic inflammatory deposits in the muscles of the neck. In order to make my demonstration more decisive I recalled the fact that painful affections in different parts of the body had the same cause. I referred to cases of sciatica which had lasted several years and which had been cured by causing inflammation of the gluteal or pelvic-trochanteric muscles to subside. The same conditions had been reproduced in migraines; the pains were extremely violent, irregularly localized—subject to exacerbations which could not be foreseen, and to attacks of irregular periodicity like those of neuralgia. Massage of the muscular insertions to the cranium, or of the fleshy part of the trapezius, the sterno-cleido-mastoid and other muscles of the neck, performed for a time sufficient to remove these inflammatory deposits, also caused the neuralgia to disappear. It was, therefore, proper for me to add to the known varieties of migraine one of inflammatory and muscular origin. For this I proposed a curative and causal treatment.

My work was received in different ways. Some gave only the title followed by an interrogation or exclamation mark, which was, no doubt, very witty. One critic made the remark that the blood in the brain came from the heart and not from the periphery, as I had written. I was well aware of this, but as I quoted Galen, I was obliged to repeat what he said. Others attacked my theories themselves. The facts which I brought forward were not questioned: the results mentioned were admitted as true, but I was reproached with having mentioned migraine in the title and having given cases of cephalalgia which had nothing in common with it. This was the fairest criticism. In speaking of migraine I used the patients' expressions, but these are not necessarily nosographs, and being aware that this was to a certain extent improper, I used the word cephalalgia in my cases to indicate the principal characters of the pain.

I am therefore not desirous of retaining the word migraine, in fact so little desirous that I shall try to show what pathologists now mean by the term, and compare with it the symptoms observed in the new cases which I shall publish. This will best enable the reader to judge whether they are migraines as he understands them or something else.

In my first publication I tried to show the causative relation existing between the cervical muscular inflammations and cephalic pains, and to prove that under a methodical treatment all can be cured. I have never held the extreme theory that all extra-cranial cephalalgias are necessarily of muscular origin; that all circumscribed cases of chronic myositis of the neck produce paroxysmal pains migrainous in character; that when both these conditions are present one always succeeds in curing them by the procedure in question; that massage is an infallible remedy which has no contra-indications and no failures.

If I had said this I would have committed a serious mistake. However convinced one may be, experience would soon open our eyes and show that if faith has formerly been sufficient to transport mountains it is not always sufficient to cure.

Failures are frequently stepping-stones to success. They oblige us to go back, to examine more minutely all the peculiarities, to find out why that which has so quickly and completely cured one person, has given no results in another. After several closely observed cases of this kind, we shall avoid blind confidence and discouragement, and replace them by reasoning gained by experience. That is what I propose to do in this pamphlet.

§1.—*Cephalalgias treated by massage. Their comparison with migraine. What is understood by this word. Observations of different types of cephalalgia, their analyses.*

To those who have reproached me with having confounded with migraine, headaches which differ from it from a clinical as well as from a pathogenic point of view, I will answer: "I acknowledge the validity of your objection and I wish to take it into account, but give me the elements of comparison and the exact description of true migraines. This will exempt me from wasting the patient's and my own time, if massage can be of no use. Those to whom I should offer this argument would probably be embarrassed how to reply. An obstacle beyond objective control opposes itself to the study of these affections, which consist in almost inexpressible sensations. How are we to define them? What is migraine, not in its essence, but in its phenomenology and how are we to distinguish it from so many cephalalgias with which it has such apparent similarities? Thus Lasegue expresses himself in 1873. The difficulties of which he spoke did not belong to that time only, they

have not even now been cleared up. I have before me a book on migraine, published several years ago, to which a prize was awarded by the Academy of France.<sup>1</sup> The author has done his utmost not to give to his work a personal stamp. It is a very precise and methodical account of the opinions held at that time. In spite of the clearness of the statement and the discussions, it is easy to notice that the picture of migraine is not as distinct as some might wish it, and that the clinical characteristics are not precisely given.

The aggregation of symptoms described under this name includes :

1° A cranial pain, the precise seat and objective characters of which change in different persons.

2° Frequent gastro-intestinal disorders, but which do not necessarily constitute the disease.

3° Objective symptoms, the most remarkable of which are redness or pallor of the face.

All these symptoms may occur at one time or singly and constitute an attack. These attacks return regularly; if there are more than one attack a week or less than two attacks a month, it is not migraine. This is a rapid sketch of the disease. Let us add to the above more or less vivid pictures as given by the patients, the study of accessory symptoms as irregularities at the beginning, disturbances of innervation, phonation, respiration, menstruation, and we shall have a complete list of what is described in all pathological books.

The term itself has not been agreed upon. Mr. Thomas says: "The word migraine is handed down by Galen." The Germans have preferred to keep its original form and say hemicrania. This is misleading, because it seems to convey the meaning that the pain is

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<sup>1</sup> Thomas "La Migraine," Delahaye et Leerosnnier, 1887.

confined to one side of the head whereas it very often extends to both. In the last few years, this theory too, seems to have been modified.

Do we find more unanimity in regard to the cause of migraine? We have but to read the chapter of the book in question in order to find out. There are tempting theories. Ardent pleadings have been written in favor of one or the other. Thomas has given a great deal of thought to them and frankly exposed them. One might think that he approves of them all, but when he comes to the critical appreciation, the improbabilities are accumulated, the contradictions become evident and from all this framework there only remain hypotheses without any proofs, the analysis of which is often cruel.

After having argued and considered everything, the author, by a process of exclusion, arrives at such a timid and doubting opinion that it is difficult to attempt to prove that it is false. All probabilities are in favor of the theory that neuralgia has its primary seat in a certain branch of the trigeminal nerve. The irritation is later on propagated to the fibers of the sympathetic nerve and perhaps to the cerebral substance. Numerous causes may

#### ERRATUM.

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Last line on page 5 should read: if it exist at all.

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After having argued and considered everything, the author, by a process of exclusion, arrives at such a timid and doubting opinion that it is difficult to attempt to prove that it is false. All probabilities are in favor of the theory that neuralgia has its primary seat in a certain branch of the trigeminal nerve. The irritation is later on propagated to the fibers of the sympathetic nerve and perhaps to the cerebral substance. Numerous causes may produce the disease; rheumatism and gout in particular are predisposing causes. What changes have been produced in the nerve elements? This is difficult to say.

Is it then such a classical neurosis with such striking symptoms, that critics were justified in reproaching me for not recognizing it?

An impartial author has the courage to go to the bottom of everything and to examine it without preconceived ideas. He comes to the conclusion that it is a peculiar neuralgia of the attacks which increase and may be modified as they go on. Laseuge said that it is almost impossible to give the exact symptomatology of migraine; exist at all.

Since Thomas's work was published, much has been written on the subject of headache and particularly on migraine. We find the same confusion everywhere, especially as concerns migraine. Most startling theories have been proposed to explain its origin and nature; but they amount to mere hypotheses, and show how little the authors understand the subject matter.

We are now going to take these difficulties step by step and to right what nature herself has not determined. We do not know whether in pathological works of the future the same thing will happen to this symptomatic complexus as happened to apoplexy and hemiplegia; that is to say, whether it will be studied simply as a symptom instead of being described as a disease. This eventuality does not disturb me very much.

I cite here some of the cases which I have had the opportunity to treat by massage; they will be sufficient for my purpose, because I do not want to write a long essay, and I have not tried to collect any statistics. I shall describe the cephalalgias as they manifested themselves to me. My readers may call them by whatever name they wish. If by chance their patients present symptoms similar to those which I relate, it is of importance to remember that in these cases there are often small inflammatory deposits in the nape of the neck, and that if these happen to disappear the pains also have a chance to disappear.

My first case is that of a patient whom I treated several times for rheumatic affections in different parts of the body and who has suffered from headache for about a year. The pain, of a dull character, is relatively bearable. It is almost constant, but he is free from it at night. (Obs. I.)

In all the other patients there was a common characteristic symptom—the sudden exacerbation or the unex-

pected appearance of the pain in the form of an attack. All of these patients have been regarded as suffering from inveterate migraine. The attacks differed in kind and form, in various patients.

A man, fifty years old, who had suffered for fifteen years, had attacks of three different types. (Obs. II.)

1<sup>o</sup> Sharp and quickly recurring attacks. These were not the most painful ones. The pain began suddenly, at any time of the day, in the right occipital region. The attacks lasted forty-eight hours. They were so violent as to render all work impossible, but were attended neither by vomiting nor by change of color in the face.

2<sup>o</sup> In the interval and especially in cold weather, in the autumn, during the winter and at the beginning of spring, the second kind of attacks came on. They were more like ordinary paroxysms of migraine than the others. In the morning the patient felt a heaviness in his head, then the pain, starting from the occipital region, increased and attained its maximum intensity towards evening. When the first kind of attacks sleep was not impossible; with the second kind sleeplessness prevailed. The following day the attacks were over. As long as they lasted the face was flushed and the pulse accelerated.

3<sup>o</sup> This attack, less frequent and more regular than those preceding, was produced only by draught. It remained localized in the temporal region.

The form of the last two kinds of attacks and the cause that produced them might make one think of rheumatism. This case, as may be seen in reading the observation, presented complex symptoms.

There were marked changes in different parts of the body and it is probable that the exciting cause of the attack did not always have the same starting point.

Another patient, fifty-five years old (Obs. III.), had

attacks occurring nearly always four times a month. These attacks did not present the same dissimilarities and irregularities as in the cases I have just mentioned. What constituted still another likeness to the traditional attacks of migraine was the almost constant existence of nausea which attended the cephalalgias.

There are, perhaps, no two cases in which the symptoms are identical.

A third patient felt an acute pain in one side of the nape propagated forward towards the forehead. In consequence of one of the paroxysms of which we have already seen examples, this attack which resembled ordinary migraine so slightly, was attended with vomiting and apparently slight paralysis of the right arm, as the patient had difficulty in lifting it. (Obs. IV.).

This case presents one of those collections of symptoms which is sometimes designated by the name of ophthalmic migraine and which one would like to separate completely from the hemicrania. The attacks are attended by paroxysmal pains in the loins and in the right arm. (Obs. V.).

A lady twenty-six years old suffers especially from intraorbital pains. Here it is well to take note of the peculiarities. The patient complains of a pain in the forehead, which radiates to the bottom of the orbital cavity. She has buzzing in her ears, and a tingling sensation in the face and scalp. This patient has partly lost her hair in the parietal region. (Obs. VI.).

Mrs. C., forty, had chlorosis in her sixteenth year. It left behind a paroxysmal cephalalgia, which has increased since then. She speaks of migraine and the expression is not at all improper. (Obs. VII.).

In a man, thirty-four years old, the trouble consists in a frontal pain, recurring every fortnight. (Obs. VIII.).

In a woman, twenty-eight years old, a sort of light-

ning starts at the nape, runs through the head in all directions, radiates to the orbita and is attended by itching of the conjunctival mucus membrane. These attacks sometimes last seventy-two hours; they are particularly violent at the menstrual periods. (Obs. IX.).

Finally we have the case of a young Italian lady, aged twenty-four, whose attacks presented a very violent character. They were limited to the right side and seem to have increased lately in number and intensity; there is violent pain on pressure on the cervical ganglia of the sympathetic nerve. (Obs. X.).

Out of the ten patients whose attacks we have studied, only four had in addition habitual dull cephalalgia. In a girl twenty-three years old, of whom we shall speak later and whose attacks appeared after a long and fatiguing voyage, there were generally painful headaches, attended by a sensation of frontal constriction and heaviness of the eyelids. All these symptoms increased at the menstrual period without assuming a distinct paroxysmal character. The attacks came on after prolonged exertions. (Obs. XI.).

I do not maintain that this patient was not of a nervous disposition and that hysteria may not have something to do with it. Exertions, however, did give rise to the attacks, but they disappeared without leaving any trace behind, together with the deposits of myositis.

To these cases related in the French edition of my work I want to add three other cases which I have lately treated, as they are not only interesting, but two of them exceptionally noteworthy.

First, that of a lady fifty-five years old, who has suffered from headache for thirty years. Until the end of the climacteric period, the pain had been relatively bearable. After that period she suffered more. The pain, acute and shooting, was so violent as to oblige her to

stay in bed. It began on the right side, slowly going to the left. At the same time she complained of a pain in the temporal region. (Obs. XII.).

The other case is that of a young girl of fourteen years. The pain, which is of a dull character, has been almost constant for the last two years. It affects the whole head and is always aggravated by studying, and prior to the menstrual period. (Obs. XIII.).

The third and last case relates to a patient who has suffered from migraine or neuralgia of the head for thirty-five years. The last seven years the attacks have been particularly violent, so that they rarely left the patient free from pain at night. The right side is more often affected. (Obs. XIV.).

The causes which produced this disease were most frequently those which we observe in affections of a rheumatic nature; i. e., draughts, the damp season, the approach of snow and rain. All this agrees with what we actually know of the nature and etiology of localized chronic myositis. It is in these conditions that the diathesis may be regarded, as Helleday expressed himself, as a real barometer.

As to the attacks themselves a change of climate, especially the approach of damp and cold weather, violent emotion, mental or physical fatigue, as, for instance, sitting up at nights, travelling, continued application of the mind (as going to museums), the stay in a locality where excessive heat is added to bad air, as in theaters, and large shops, may produce them; indeed, even a change in the ordinary habits of life is often sufficient to provoke an attack. How is it then, that the changes in the muscular tissues found in chronic muscular inflammations of the neck, temporal region, etc., are always present, and that there are in most cases intervals of a shorter or longer duration, from a day to weeks, in which

the patient does not suffer from headaches? The explanation of this is that chronic myositis always develops slowly. It develops, so to speak, in an insidious way. The system gets accustomed to the presence of these myositis deposits and does not react upon them. One element must, however, be added to those already existing, in order to make the patient suffer. This element is congestion produced either by the above named or, perhaps, by other causes. That this is so, we note quite frequently during the attack, sometimes also before the attack; we find that the myositic deposits are more swollen and at the same time more sensitive on pressure, and that the swelling goes down and disappears, as soon as the attack is over<sup>1</sup>.

We very often find in the same person several causes able to provoke an attack.

Let us now see the alterations found on palpation of the muscles and particularly of their insertions:

Obs. I. Swelling of the size of a nut in the body of the right splenius, puffiness of the scalp in the neighborhood of the point of emergence of the lesser occipital nerve. On the left side, swelling and pain on pressure on a level with the insertions of the trapezius.

Obs. II. On the right, behind the mastoid apophysis, marked induration corresponding to the muscular insertion. Another induration of the pressure on this part projects to the middle of the nape; pressure on this part provokes pain on the vertex and in the orbit. Swollen and painful glands in the neighborhood. Pain on pressing on the upper cervical and the middle ganglia of the sympathetic nerve.

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<sup>1</sup>Frequently we hear the patients express themselves in regard to the approaching attack: "Oh, Doctor, I am almost sure that tomorrow I shall have an attack, because I find that the muscular swellings are to-day more sensitive on pressure." And the patients are very rarely mistaken in their predictions.

On the left very hard deposits corresponding to the insertion of the sterno-cleido-mastoid muscle. Resistent nodule in the substance of one of the scaleni, more marked on a level with its lower insertion., Pain on pressing on the upper and middle cervical ganglia.

Obs. III. On the right side, induration in the neighborhood of the cranial attachment of the splenius; swellings in both sterno-cleido-mastoid muscles, a little below their insertion on the mastoid apophysis. Deposit of induration along the attachment of the trapezius to the skull. Tumefaction of its aponevrotic sheath in the region of the occipital protuberances. Sensitiveness along the supra-orbital nerve in the right frontal region.

Obs. IV. On the right side, one part sensitive to pressure on the mastoid apophysis, another part along the trapezius. On the left side, painful swelling on a level with the cranial attachments of the splenius, the trapezius and the temporal muscle.

Ovs. V. On the right side, induration of the size of an almond, corresponding to the cranial attachment of the splenius. Swelling and sensitiveness to pressure corresponding to the upper insertion of the sterno-cleido-mastoid muscle; same swelling in the temporal muscle.

Two of the lymphatic ganglia of the neck are swollen and painful. The middle cervical ganglion of the sympathetic nerve is swollen and sensitive to pressure.

On the left side, pain on pressure on a level with the upper cervical ganglion, less pain on the pressure of the middle one.

Obs. VI. On both sides, induration in the upper edge of the trapezius. On the left, induration corresponding to the mastoid insertion of the sterno-cleido-mastoid muscle.

Obs. VII. On the right side, in the upper part of the trapezius, muscular induration of the size of a small nut.

There is a sensitive spot along the scalenus medius. Middle cervical ganglion swollen and tender. On the left side, in the thickness of the trapezius (cervical part), small induration of the size of a nut. Another swelling corresponding to the insertion of the sterno-cleido-mastoid muscle, oedema of the skin and of the subcutaneous cellular tissues. Infiltration of the scalp in the occipital region.

Obs. VIII. On the right side, pain on a level with the cranial attachments of the muscles of the neck, at the extreme occipital protuberance and at the mastoid apophysis. Both ganglia of the sympathetic nerve, especially the middle one, are enlarged.

On the left side, tumefaction and induration on a level with the scalenus medius. Lymphatic ganglia swollen and sensitive, middle cervical ganglion likewise.

Obs. IX. Myositis of almost all the muscles of the neck; especially marked in the outer edge of the cervical part of the trapezius and in the scaleni. The temporal muscles are equally affected.

Obs. XI. Behind the mastoid apophysis, painful swelling; same lesion on a level with the cranial attachments of the trapezius.

Obs. XI. The scalenus of the right side is the seat of a chronic myositis. Several lymphatic ganglia swollen.

Obs. XII. Voluminous deposit of myositis behind the right ear in the sterno-cleido-mastoid muscle; also in the trapezius on the same side. Swelling of all the muscles along their attachments to the cranium. Upper attachment of the temporal muscle swollen.

Obs. XIII. Scalenus and trapezius affected especially on the left. In the latter one on the same side, next the median line. On the right, smaller deposits of inflammation; has its seat higher up than on the other side.

Obs. XIV. On the right, voluminous induration in the **sterno-cleido-mastoid** muscle near its upper attachment. Swelling of the size of a small almond in the lower part of the **scalenus**.

The upper attachment of the temporal muscle is swollen and sensitive to pressure. Sensitiveness and puffiness of the supraorbital nerve. The first ganglion of the sympathetic nerve swollen. On the left side, swelling of the trapezius and splenius at their attachment to the cranium.

I have already said in my "Traité de Massage" and in my first work on the subject, that I considered these limited deposits of muscular inflammation as partial chronic myositis, corresponding either to the insertions or to the fleshy part of the muscles. It seems useless to reiterate the considerations which I then mentioned in support of this question. I have also said that I attributed these disorders to rheumatism; that authors had called these chronic inflammations muscular rheumatism without any more precise designation. It is possible, after what we have seen, to find another unexpected similarity between the cephalalgias which we are studying and migraine. Mr. Thomas, after a minute study of the opinions held, denies the direct transmission of the disease from the person suffering from migraine to his children; on the contrary, he admits without hesitation that these inherit predispositions, among which he places rheumatism first. This is also the case with the cephalalgias of which we are speaking. A great number of our patients suffer from rheumatism by heredity; in several of them the localizations in the muscles of the nape are neither the first nor the only manifestations. It has often happened to me that I treated persons for cephalalgia with paroxysms, in whom I had formerly performed massage for affections of the same origin in the muscles of the limbs or the trunk, or that I

learned when questioning the patient, that their parents had also rheumatism.

Sometimes the rheumatic manifestations in other parts of the body are little marked so that one is inclined to deny their existence; it is only in carrying the investigations further, that one almost always discovers some vague and indefinite pains (latent rheumatism).

In looking over the number of alterations which we have just described, it is easy to see that the seat preferred by chronic myositis is the cranial insertion of the muscles of the neck, the splenius, sterno-cleido-mastoid, trapezius, etc.; the changes have also been found on a level with the insertion of the temporal muscle, either on one side only or on both. In the latter case the swelling is generally limited as regards its extent; it extends only about one or two millimeters below the upper attachment. There are cases in which only the anterior part is affected, while in others, and this is more frequent, it is the posterior one. Myositis in the body of this muscle is rather rare. I have never seen the muscular inflammations in this region assume an organized form in the shape of a real hard body. They always manifested themselves in the shape of a swelling. I have lately seen a patient in whom the swelling had developed to such a degree as to disfigure him. Although this swelling is generally not very marked on palpation, the patient often experiences a very violent pain when pressing on it. Sometimes a few moments of rubbing are necessary to evoke the pain.

Deposits are frequently found in the margins and in the body of the trapezius, the sterno-cleido-mastoid, the splenius and the scaleni. It would be a serious mistake to suppose that, after diagnosing a myositis, all is over, and that it would be superfluous to carry the exploration farther; one would often be exposed to painful disappointments in the course of the treatment.

It often happens that the inflammation is not limited to the muscles, that there is infiltration and pain on pressure, a swelling of the size of about one or two centimeters at one or several points of the scalp which may give rise to intense pains on account of the pressure and irritation exerted upon the nerves it includes. It is generally found in the neighborhood of the external occipital protuberance; sometimes there is one even on the vertex. I have lately successfully treated a case in this city (New York) in which it seemed as if the entire scalp formed one swelling. I have met with real embossments of the scalp, painful on pressure. In a case of this kind, which I have had the opportunity to treat last year, it was possible to perceive the inequalities by mere inspection of the region. It took rather long before they disappeared, and this only after energetic and prolonged massage. But this is the rule. For about three weeks the condition remained stationary. When the amelioration in the scalp became evident, the lymphatic ganglia of the neck on the same side became affected.\* This circumstance frightened the patient all the more. I reassured her and continued the treatment. After six weeks she was cured.

One also meets, although more rarely, with true organic alterations in the subcutaneous tissue of the nape, which may even attain a considerable hardness. They are very often confounded with muscular inflammations of the same region. They are easily recognized as we are able to seize them between the thumb and the forefinger and displace them. These more or less indurated areas constituted, together with others not so well defined

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\* These glandular enlargements which I have frequently observed under similar conditions were, of course, due to the irritation produced while massaging the swollen areas. The glands acted as reservoirs, discharging their contents into the general circulation.

in regard to their supposed origin, what was termed "Froriep's Rheumatische Schwielen."

The nerves may be affected in several ways. Have we always to deal with neuritis or even a real neuralgia? This is not probable. It is sometimes rational to admit a compression of the nervous filaments by muscular deposits which vary in size in proportion to the particularities of the morbid process. The inflammation is probably in some cases also propagated to the sheath of the nerve, or this is affected quite independently and particularly at the exit of the nerve from the cranium and in its neighborhood. It is not rare to meet along the supraorbital nerve, especially in the neighborhood of the orbit, a puffiness distinctly perceptible on pressure, sometimes even by sight, and this puffiness is very painful. All this is probably caused by a perineuritis.

In this respect no external cranial nerve presents any immunity. All may be affected. Along the supraorbital nerve the alterations are more easily discovered than along other nerves.

We must not suppose that all pains in supra-orbital and occipital nerves depend on an inflammation of these nerves or their sheath or are even due to common neuralgia. Sometimes pressure along these nerves does not produce any pain, and yet they may be the seat of a such one, which they seem only to conduct from the muscular inflammation in the nape. This I might call *false neuralgia*. Everything disappears in such a case when the myositis deposits of the nape no longer exist.<sup>1</sup> There is reason to suppose:

First, that there exists either only a compression of

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<sup>1</sup> We have treated a certain number of cases in which cephalalgia had distinctly the character of a supra-orbital neuralgia. There were deposits of myositis at the nape. In causing them to disappear through massage, the neuralgia was cured.

the occipital minor nerve (communicating with the supra-occipital one) due to the deposits of myositis in the muscles of the neck or a real inflammation of its sheath (perineuritis) and having the same origin as that which had caused the muscular inflammation (rheumatism).

Secondly, that the transmission to the supraorbital region has taken place through collateral or reflex channels.

The first thing happens rather frequently in other regions. I mentioned in reference to this in my first work on migraine: "Helleday's observation relates the case of a patient, complaining of stiffness and sensitiveness on pressure in the hip and at the same time of a violent pain on a level with the ankle bones and on the external part of the leg." He says: "I have sometimes noticed that massage of the gluteus medius on a level with its insertion to the crista ilii causes the pains to disappear."

I have several times been in a position to observe the same. Some patients complained of violent pains in the calf and foot along the two branches of the sciatic nerve; pressure on them did not elicit any pain. All was caused by a limited myositis of the gluteus medius, which was easily cured by massage.

I have at different times noticed the existence of a pain and swelling rather marked on a level with the upper and middle ganglia of the cervical sympathetic nerve. This fact is interesting. Beard, Rockwell, Brunner, Benedict, had also noticed it. It was the corner-stone of Dubois-Raymond's theory of hemicrania; the sinking of the eye, the hardness of the temporal nerves, the anaemia of the face were, according to him, results of the same process; vomiting depended on changes of intracranial pressure. In all this only one single organ was the cause: the cervical sympathetic nerve. The sensitiveness to pressure on the ganglia, the almost complete dis-

appearance, when the attack was over, proved it. I have already said that I did not intend to undertake a nosological discussion on the nature of migraine. I only state that in my observations there were inflammatory lesions in the muscular system, in some of them also of the nerves of the scalp, the forehead and in the upper and middle cervical ganglia. Sometimes the attacks presented various types, so that it might be possible to connect some of the attacks with the muscles and cerebro-spinal nerves, others with the sympathetic nervous system. (See Obs. I.) I never believed that this one was a *noli me tangere*. I have massaged painful ganglia and I have had good results. Professor Rossander, of Stockholm, was the first to call attention to this point.

I divide muscular inflammation into three stages.

1. *A swelling.*

2. *Resistance*, where the inflamed area is to some degree organized and resistant to the touch, although still preserving a certain degree of elasticity.

3. *Induration*, where the consistency is very hard, sometimes as hard as cartilage, no elasticity whatsoever being left.

The transition of the different stage is not clearly marked. At times two stages exist simultaneously in the same inflamed area.

It is self-evident that if there are several inflammatory spots present at the same time, all of them need not necessarily represent the same stage of the disease. On the contrary we frequently see them representing different stages from the single swelling to a very hard lump.

The essentially chronic muscular inflammatory process is often not recognized at its origin. It is not necessary for the patients to suffer from headache when the inflammatory process sets in. Taking into consideration

the slow development of chronic myositis, everything tends to the belief that a longer or shorter period has elapsed before this moment; but we have no means to know the duration of the period of indolence and tolerance.

It not only seems as if the muscular inflammations like other inflammations of the body would develop differently, in some cases slower in others more quickly, but it also appears as if these inflammations would produce in some individuals earlier or later symptoms; in some even none at all.

Propagations to the lymphatic system are not rare. We have often found that the ganglia, especially those of the nape, were swollen; the adenitis was chronic, not giving rise, however, to suppuration. There was neither redness of the skin nor pain on pressure, nor softening of the pulp of the ganglia. All disappeared spontaneously after the cure of the myositis, from the irritation of which these glands became swollen. We see similar appearances in other parts of the body as a result of irritation of inflamed areas. (In one of my cases reported, No. 10, the swollen and enlarged glands of the lymphatic ganglia were mistaken for scrofula.<sup>1</sup>)

We have to deal with the same process, variously located. The remedy employed ought to be useful in all cases, the mode of application only changed.

Let us sum up. We have seen: First, affections of the cranial portion of the head in which the pain consisted of two elements; a continuous element, not very pain-

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<sup>1</sup>The mistaking of enlarged ganglia, no matter what their cause, for deposits of myositis is possible only on superficial examination. The ganglia are easily displaced and roll under the fingers, which makes distinction easy, while the deposits of myositis are only movable with the muscle of which they form a part. The ganglia are furthermore more globular in form and not as painful on pressure as the myositic deposits.

ful and inconstant; a paroxysmal element, the characters and intensity of which were very variable and in many cases like that which authors have described under the name of attacks of migraine.

Second, alterations perceptible on palpation and containing deposits of muscular inflammation, corresponding to the insertions or to the fleshy part of different muscles of the nape; puffiness and isolated or multiple swelling of certain regions of the scalp; sensitiveness to pressure and pain along some nerve trunks, swelling and pain on pressure of both upper ganglia of the cervical sympathetic nerve, either on one side or on both; chronic swellings of certain lymphatic ganglia of the neck.

Before leaving this subject, it seems well to remark that objective phenomena are not those which we see in spite of ourselves, as I might say; that they ought to be sought for and that this search often presents difficulties. No doubt when we have protuberances of the scalp, indurated cords along the nerves, areas of the consistency of leather in the muscles, they are easily found. But in the beginning the changes are less marked; we must acquire delicacy of touch in palpating the muscles. By this means only do we succeed in discovering inequalities, simple differences of elasticity of one point from another.

It is likewise well to examine the patients during an attack. Inflammatory swellings may exist which, in spite of the most careful examination, cannot be discovered, but which are easily recognized as soon as the patient has an attack, the latter bringing out the swelling sufficiently to be appreciated by the examining finger. In neglecting this rule we may never find these areas or only by chance later on, when the treatment in other places is quite advanced. This would, of course, be unfavorable as regards an ultimate cure; the duration of treatment would certainly be unnecessarily extended.

Let us now return to the relationship which exists between objective and subjective symptoms, as Vretling, Henschen and Helleday have tried to establish and as we ourselves have shown.

None of the former observers nor I have anything else in view but extra-cranial secondary cephalalgias. Paroxysmal headaches belong also to the symptomatic triad of cerebral tumors; old people whose convolution received only an insufficient blood supply have headaches; their habitual cephalalgias are sometimes interrupted by attacks which they call migraines; all this is well known. These pains have nothing in common with those of which we have spoken and we have never thought of treating them by massage. It goes without saying, that before beginning massage the masseur has made a careful examination and arrived at a correct diagnosis.

Quite frequently the objection is raised, and this seems at first sight of some importance, why do you connect parietal, frontal or occipital cephalalgia with myositis of the neck, when the patients do not suffer and have perhaps never suffered in this region? The same objection may be raised in regard to other diseases.

In some affections the spontaneous pain has not always the same seat as the lesion. It is the rule in our cases, but its absence can not be an objection to our theory<sup>1</sup>

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<sup>1</sup> In support of this fact, I have already related how neuralgic pains of the calves can have no other origin but a muscular inflammation of the gluteus medius. I have also observed cases in which the muscular inflammation produced symptoms simulating parasthesia and the symptoms appeared in localities quite distant from the region referred to by the patient as the seat of trouble.

I remember among others a case where the patient (an elderly lady in Paris) for several years complained of the sensation of cold in the thumb and its two adjoining fingers of the right hand even in the middle of summer. Moreover, she complained of the sensation of numbness, formication, etc., in those parts. On ex-

On the other hand let us remember that more than once pressure on the myositic deposits in the neck provoked the same kind of pains and in the same localities as when the patient had an attack. I have often caused pain on the vertex and as far as the bottom of the orbit by pressing on the muscles of the neck, likewise, although very rarely, when pressing on deposits situated lower down towards the shoulder<sup>1</sup>.

There is no inversion as regards the seat of trouble and the pain. If the myositis is on the left side, the pain will also be produced on the left side just as in spontaneous attacks. The same is true of the sympathetic ganglia in the neck. The regularity as well as the pain produced in pressing on the affected parts, whereas there is no marked sensitiveness in neighboring parts, the distinct sensation that there is something that ought not to be, especially when compared with the negative findings at former examinations, all this surprises the patients. They have faith in the method of treatment and thus become from the start docile auxiliaries to the physician. Among others I may here refer to a case

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amination I found a big lump in the M. Deltoideus pressing slightly on the radial nerve without producing any special abnormal sensation in the muscle itself. Various treatments in the neighborhood of the hand had been employed without any success, whereas massage and suppression of the myositic deposits in the M. Deltoideus brought about a permanent cure.

A lady in Brooklyn whom I treated and cured at the beginning of this year (1902) has for four or five years been complaining of the same sensation in the small and the two adjoining toes of the left foot. On examination I found a very extensive and rather hard deposit in the M. Soleus and Gastrocnemius. This deposit apparently exerted a marked pressure on the external branch of the sciatic nerve.

<sup>1</sup>Patients are often rather skeptical when you tell them that their headaches have their starting point in the muscles of the nape. They declare that this is impossible as they feel nothing in this region.

which I observed in Paris in the fall of 1890. It was the wife of a celebrated author. When she came to consult me she entertained very slight faith in massage. She consulted me more to oblige her husband than in the hope of getting cured. I found a big, hard lump in the upper border of the trapezius on the right side. When I pressed upon that spot at a time when she complained of no pain, the patient experienced a very sharp pain above the eye on the corresponding side along the supraorbital nerve, the pain radiating into the temporal region. This at once impressed the patient, and after two months' massage, with no other treatment of the above mentioned area, she was entirely relieved of her pain.

As the treatment progresses one frequently observes the beneficial results obtained, as if massage had again been lost. The cervical deposits diminish, become less and less sensitive to pressure, but suddenly the patient bears the manipulations less well than before; he complains of local and radiating pains comparable to those he had on the first days of massage; we can predict an attack the following day or the day after. The attack may be shorter and less painful than the attacks which preceded the treatment, but it will almost always be just as distinct.

Finally, the curative action of the treatment is the last and best argument in favor of the existence of a relation of cause to effect.

To cranial cephalalgias produced by the above named causes may be added other cephalalgias due to real neuralgias in different branches of N. Trigemini. I have seen it in N. Auricularis, N. Auriculo-temp., Nasociliaris, etc. It is evident that these neuralgias, if they exist singly or complicating the former, do require special local treatment.

Yet Dr. Rossander, several years ago, described very curious observations on *tic douloureux*. In some cases

he obtained radical cure by massage of the cervical ganglia of the sympathetic nerve, which had been swollen and painful.<sup>1</sup>

I have myself obtained some good results by the same procedure; the results are generally still more satisfactory if to the frictions on the sympathetic nerve one adds frictions and trepidations along the affected nerves.

Other symptoms, more disagreeable than painful, complicating cephalalgias, can be caused to disappear in the same way. I have seen tingling in the ears cease after the relief of a headache. Another patient whom I treated lately and who complained for more than a year of hard hearing on that side of the head where she suffered particularly and where the muscular inflammation was more developed, had her hearing restored when her headache was cured. It was the same with a third patient complaining of repeated painful acts at deglutition.

We said nothing of *cephalalgia due to growth*. Interesting articles have been published by Blache, Charcot, Keller and others. Authors do not agree on its origin and nature. Ollivier believes that in many cases a hereditary nervous substratum exists, that the headache corresponding to the growth is a precocious hysteriform manifestation. My personal experience does not allow me to express an opinion; it is however, probable that all cephalalgias which occur at the end of childhood are not due to the same cause; that some of them are very like those which we have described. In some cases I have found chronic inflammation of the muscles of the neck and I have succeeded in curing or improving the patient's condition by removing these inflammatory conditions; in others I have obtained nothing, although local changes as regards the consistency of the muscles made me expect better results. All this shows that there

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<sup>1</sup>Hygeia, 1886.

are varieties of cephalalgias due to growth. Those in which the treatment was ineffectual, and these are the less numerous ones, probably belonged to the cephalalgias which Or. Olivier connects with general neurosis.

It would be wrong, I repeat, in drawing from what I have just said exaggerated conclusions and believe that all myositis of the neck produce cephalalgias, that all headaches originate from muscular inflammations. I have had the opportunity to treat cases of chronic torticollis by massage, and I have sometimes found inflammatory deposits in different parts of the trapezius similar to those which I have described, and yet some of the patients declared they never had any headaches.

Relapses of headaches which have been cured are not very rare. When they do take place, new lesions are found or the former ones have been partly reproduced. The same applies to the motor sphere as to the sensory one; one has to deal with an irregular process, subject to sudden exacerbations and remissions.

Why do identical anatomical alterations give rise to such different symptomatic manifestations? This is difficult to answer. They perhaps depend on the degree of irritability of the neighboring nerve terminations.

In every case we meet the same kind of anomalies. Some years ago a very painful neuralgia which is exclusively observed in old persons and adults having lost their teeth has been described; it is for this reason called the neuralgia of the toothless. It is far from being a fatal or even frequent occurrence in adults. One might answer with similar arguments to an objection which has often been made to the doctrine of cephalalgias of muscular origin. You are confronted with an alteration which does not disappear, which always preserves its primitive character. You cannot expect a spontaneous healing of the tissues. It is

difficult to understand how attacks, irregularly intermittent, can constitute the most important clinical phenomenon of the disease. The contradiction is flagrant: to fixed and persistent anatomical alterations would correspond attacks which present opposite qualities.

To answer this objection we refer to the cases reported. I have often had to treat persons who for years regarded cephalalgia as incurable or, as the popular expression says: "An enemy with whom one is obliged to live."<sup>1</sup>

§ 2. *Practical remarks on the application of massage. Which are the cases in which we have the most or the least chance of curing?*

The time of treatment sometimes varies in different individuals independent of pathological conditions; the causes of this may be unknown.

I consider the following varieties of relatively unfavorable prognosis:

1. *Very old cases.* Sometimes even in these conditions good results are obtained. The patient in observation III. complained of headaches since her eighth year; she had tried everything, electricity, iron, quinine, arsenic. Some time before the treatment she had as many as one or more attacks a week. After eight weeks of massage I obtained complete cure. The observations VIII., XII., XIII. also relate to very old cases. We must not be discouraged at the beginning, because the affection is very chronic and declare that nothing can be done.<sup>2</sup>

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<sup>1</sup> This resignation is badly rewarded; when one has an attack every fortnight or at longer intervals one picks up courage, as best one may, and endures it. But the crises influence the character and mental state, sometimes they may make work impossible and constitute an infirmity; this is the moment when even the most courageous people try all medications, however uncertain and painful they may be.

<sup>2</sup> Cephalalgia generally ceases in women once they have come to the climacteric period, or it is so insignificant that it is not worth

2. *General affections of the nervous system.* We have several times employed massage in persons suffering from neurasthenia, in cases where after examination we were able to prove the presence of one or several of the inflammatory deposits in question. The results were favorable as concerns the headaches of a rheumatic origin, but absolutely negative as concerns those of a nervous origin. What has been said of neurasthenia applies all the more to hysteria. There is no need of repeating what we have said. In other words: if at the examination we do not find anything in the forehead, the scalp, the muscles of the neck and in the outer edge of the trapezius, it is useless to perform massage; a failure would be the only result. We speak of local massage and not of massage belonging to a treatment the object of which is the improvement of the general nutrition as that of Weir Mitchell.

3. *Cephalalgia due to Cloro-Anemia.* Nothing prevents in cases of this kind the production of limited chronic myositis of the neck. In this condition, besides the habitual cephalalgia which corresponds to the general state and upon which we are of course powerless to act, there are sometimes attacks, paroxysms, which may be caused to disappear by treating the local deposits; but here, as in neurasthenia, massage must be considered as an element of a medication with multiple factors. At all events in mixed cases it may sometimes be extremely difficult to decide which causes give rise to the present symptoms. Massage can, of course only suppress, I repeat, headache due to a local cause, whereas headaches due to a general cause remain uninfluenced by the treatment.

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speaking of. I have, however, seen exceptions to this rule and even cases in which the pain increased after this period. Observations III. and XII. are a proof thereof.

4. *Continuous cephalalgias* characterized by pains, shooting or dull in character, during the night as well as the day. They are—especially if they are old ones—often of central origin and depend on an affection of the brain or the spinal cord, on a general neurosis, an organic disease with permanent compression of one of several nervous filaments, etc.; we cannot do anything for them. They may be, and very often are, of an extra-cranial origin and are then susceptible to massage.

These remarks show that massage is like all other therapeutic measures. When a patient, convinced beforehand by the accounts of enthusiastic persons who have been cured, comes to see us and asks us to begin the treatment, before beginning it, let us make all inquiries which may be able to enlighten us on the causative affection, let us make a complete study of cephalalgia. It is the only way to proceed rationally and to avoid disappointments.

Patience on the invalid's part is indispensable. But rarely is anything obtained before the third or fourth week. However, I have seen some cases in which good results were obtained in a short time. A young lady, married since a few years, had violent headaches for one year, in which massage produced an unexpected effect. After the first sitting the pains ceased; they only reappeared once, a fortnight later. A painter suffering very much from anaemia, whom I treated in the Spring of 1885, had had painful cephalalgias for three years. During the last weeks they had been constant and left him neither during the night nor the day. After a few days treatment the improvement was obvious and after three weeks he declared himself cured. As deposits of myositis still existed I insisted upon continuing the treatment for a fortnight. After this period everything disappeared and he has had no relapse at least for three years. In the last years I have obtained the same rapid cure in two

other cases: a lady, treated at the end of 1889, suffered every day for several months; she was cured after three weeks. During that time she only had three very slight attacks. The second patient was a man who had suffered for eight years and who at the approach of spring had longer and more violent attacks. At this time they last several weeks every year. At the beginning of the treatment, 1887, he suffered every day for a fortnight; later on no cephalalgia nor new attacks for three weeks; up to September, 1889, no relapse. The young girl reported in case XVIII also recovered in a short time, i. e., within three weeks.

Besides these cases I might relate others, more rare, in which not the slightest improvement was obtained until after five or six weeks. In these cases the affection had generally lasted for a long time and the deposits of myositis had consequently gotten very hard. On the other hand, I have seen very old ones (of thirty or forty years' duration), in which, contrary to all expectation, there was evident amelioration after a treatment of only a fortnight. (See Obs. XII.)

When the pain, after it had stopped for a shorter or longer time, recurs suddenly during the treatment, which is very disheartening, it does not, as I have already mentioned, forbode anything. As long as an inflamed part and a zone of tenderness exist, the cure is not complete. In those sudden relapses, if they may be so called, we perceive that the lesions which at this moment tended to disappear have acquired a new importance and from one cause or another they at least partially reappear. It is wise to warn the patient of this at the beginning. What has to be done? Continue to apply the adopted procedures; it is an arrest of progress, not a sign of powerlessness. We must not conclude from the persistent vague pain in the head that the treatment has

been unavailing. I have seen this happen in some cases, amongst others in a lady suffering from chlorosis who complained of violent migraine for five years; these attacks had begun during a pregnancy; after the confinement they did not disappear. In the interval of the attacks, there was a troublesome more than painful cephalalgia. I found the classical alterations in the neck; after six weeks massage these as well as the attacks disappeared; a kind of concomitant heaviness continued for some time. This let up, however, and ceased entirely without any treatment. We read in almost all works on cephalalgia that pregnancy causes it to disappear. This is a rule subject to numerous exceptions; the fact which we have just related is a proof of it.<sup>1</sup>

I have said, and I repeat it, that sometimes it is not sufficient to massage the muscles alone. Since the publication of my first work, I have massaged the nerves of the scalp, when sensitiveness along their course was found, and with all the more reason when they were the seat of structural alterations. I have massaged the ganglia of the sympathetic nerve, when one or several of them were swollen and painful on pressure. I have worked on the subcutaneous infiltrations of the scalp as often as they could be discovered. I cannot trace rules applicable to all cases because of the variations which they present. Precautions and greater diplomacy are often more necessary in nervous women than in other invalids; their sensitiveness is greater; the slightest contact is sometimes painful to them; one cannot rely upon their firm resolutions, whatever may be their wish to get cured and their confidence in the method. As to the scalp, the hair might be an obstacle; one is then obliged to trace with the

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<sup>1</sup> This condition does not seem to me to constitute a contraindication to the use of massage of the nape.

scissors an imperceptible line corresponding to the course of the nerve that has to be massaged.<sup>1</sup>

Never give the patient cause to expect relief after every sitting. I have seen several patients feel rather disappointed in this respect. I treated them at the moment of the attack and this persisted. The only difference between their state before and after the massage was that in the second condition they often felt a sensation of numbness over the whole head. After one or two hours they were distinctly relieved, but this is not always the case.

The sitting lasts fifteen or twenty minutes. In patients in whom the area to be massaged is covered with hair it is necessary either to cut short or shave it off in order to avoid inflammation of the hair follicles; even abscesses may result by not observing this precaution.

In regard to the manipulations of massage I advise those who wish to know more about them to refer to my book, "*Traité théorique et pratique du massage*," Paris, 1891, 672 pages. At present, I shall only mention that in order to treat myositic deposits seated in the neck or tumefactions in the scalp itself one must massage exclusively with the thumb. Here as elsewhere in body all manipulations must be executed in the direction from the periphery to the center, i. e., towards the region of the Ven. Sub-clav. sin. The swellings are generally easily overcome without using any great force. It is not the same in the case of resistance, still less so in the case of indurations, which are sometimes as hard as cartilages. In the latter case a great deal of strength is often required. It is self-evident that it requires more time to rid the patient of these than of those of the former kind.

When dealing with the nerves, it is well to perform

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<sup>1</sup>One is only very rarely obliged to have recourse to this procedure.

simple friction at first and then trepidations and strong pressure. This at first produces an increase of the nervous irritability, which is, however, soon followed by a certain degree of fatigue, diminishing the pain and sensitiveness to pressure. By the repetition of these manipulations, this condition becomes permanent.

On the accessible part of the supra-orbital nerve one massages laterally downwards, when alterations of perineuritis exist. We cannot say anything in regard to the sympathetic ganglia. It is the individual sensitiveness which governs everything; the upper ganglion is easily found; as to the middle one, which is more or less hidden behind the sterno-cleido-mastoid muscle, it is well to have the patient turn his head to the opposite side in order to better get at it. The lowest one, on a level with the first rib, is less accessible. Fortunately it is more seldom affected than the other two.

When beginning to massage myositic deposits, especially when these are hard, before one's muscles are sufficiently developed, the masseur gets tired out very quickly. The muscles become sore and the séance has to be interrupted more than once in order to rest. By practice the muscles gain in size and strength, and it is then possible to massage several successive patients without experiencing fatigue. The manipulations which in the beginning were painful are usually well tolerated at the end of a few days, i. e., as soon as the pain caused by the manipulations (bruise-pain) diminishes.

After patients have been cured, relapses may still be expected, as I have mentioned. This is, fortunately, not the rule but the exception. In two hundred and thirty-two cases cured or improved, I have observed relapses forty times. It may be that relapses occurred in patients whom I did not see again. Relapses may sometimes occur after several years, sometimes in the course of the

first year<sup>1</sup> after the treatment. This latter is very rare. The symptoms are generally less pronounced and painful than in the first attack. The reason for this is that patients usually return before these muscular deposits have developed too far.

For the same reason the duration of the treatment of the relapse is usually shorter than the first attack, often a fortnight or three weeks suffice. In some very few patients I was obliged to begin twice; in the end all turned out well.

Before finishing this chapter I will say a word about cephalalgia due to *congestion*. "Congestive cephalalgias," says Martino, "are those which are caused by a rush of blood towards the head, as is observed in certain cases of general or local plethora, when there are obstructions to the circulation in the upper parts of the trunk, or when inflammation or other intra-cranial changes exist."

It would never have occurred to me to apply massage in *cerebral congestion* if I had not by chance been led to it.

In the spring of 1892, Prince S—r, from Vienna, recommended to me by Prof. Billroth, came to Paris to be treated for a migraine from which he had suffered for several years. The examination showed that he was at the same time suffering from symptoms of cerebral congestion which he asked me to treat. I told him that massotherapeutics could not produce any effect on this last affection and I treated only the headache. He was relieved in a short time, and when he returned to see me the following year, he told me, to my surprise, that the congestive attacks had also disappeared soon after his

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<sup>1</sup> The tendency to a recurrence seems to me to be less marked in older persons. It is also worth observing that we must not rely on the action of nature and let even a small part of the muscular inflammation remain which might give rise to a relapse.

leaving Paris, although he had discontinued the medication which had formerly been prescribed for him.

I at first thought it simply a coincidence and I wished to repeat the experiment before drawing conclusions.

The first patient that came under my observation was a lady sixty-two years old, who had reached the age of the menopause seven years ago. She complained of heaviness of the head, tingling in the ears, weakness of the legs, etc. There were at the same time signs of myositis in the nape. Massage soon caused all these symptoms to disappear and the patient, seen again fourteen months later, had not suffered any relapse. Another patient of about the same age and presenting the same symptoms, was treated and cured in the same manner. The symptoms had not reappeared twelve months after the treatment was stopped.

A Protestant minister, aged fifty-four, with a flushed face, with a big, apoplectic neck, with a tendency to sleep after meals, giddiness, etc., came to see me and desired to be rid of all these congestive troubles.

I began massage of the muscular inflammations of the neck and obtained, after a relatively short time, such an amelioration that he felt as if he had grown twenty years younger and he was able to devote himself to his study and work, which his trouble had prevented him from doing for several years.

Seventeen other patients have been treated since then with more or less success.

Since I came to this country about seven years ago I have had the opportunity to treat a case which also very clearly demonstrated the utility of massage in this class of cases. I consider it best to relate the history of the case as given by the patient himself at my request. The patient writes to me the twelfth of last May as follows:

“Mr. H., twenty-seven years of age, resident of New York. One day in the spring of 1897, while at business, without any warning, except a little dizziness, I fainted dead away; but came to in a minute or so. From that time on I was troubled more or less with fainting spells, dizziness and blurred eyes. Sometimes I would feel faint for twenty minutes, at other times for an hour, and, occasionally, for days. In the latter case not all the time, but intermittently. I went to about eight doctors, many of them noted specialists; they differed as to the cause of my complaint and advised various treatments. I got no relief and suffered in consequence for about two years. I then consulted Dr. Norström and was treated by him every day for several months for muscular inflammations of the neck. I was skeptical for a long time as to the efficacy of his treatment.

“So gradual was the cure that it was several months, I think about three, before I was exempt to any great degree from dizziness. I then began to improve more rapidly, until I was entirely free from all the feelings that I have described above. For over two years I was not troubled with these sensations except for a few moments once or twice during this period. I believe this was because I stopped the treatment before I was cured. I mean by this before the muscular inflammation was entirely removed. The consequence was that after about two years had elapsed the feeling of dizziness again returned. I once more took the treatment, starting at the end of September of last year, and once more I am for several months free from faintness and dizziness or feelings of any kind in the head.”

When I saw this patient at the above mentioned time, he complained of the symptoms as described by him and at the same time of an almost continuous dull feeling in the head. The spells of dizziness recurred with the same

frequency and intensity, but did not occur as suddenly as do cases of epilepsy. The patient had always sufficient time to sit down and consequently he never fell on the floor, when the attack came.

On examination I found all muscles of the neck, with the exception of the scaleni, more or less infiltrated with myositic deposits. They presented various consistencies, but all of them were found to be in a very advanced stage (resistance and induration); those seated at the insertion of the sterno-cleido-mastoid muscles were particularly hard on palpation. Consequently it took not only weeks but months to get rid of them. And still a trace of them was left, when the patient, on account of business reasons, was obliged to discontinue treatment and leave for Europe at a moment when for the last few weeks the patient had not suffered in any way.

When I saw this patient for the second time I was quite surprised to see how the muscular inflammatory deposits which remained had in the relatively short time of something over two years assumed a similar development with almost the same wooden hardness as they did the first time I saw him. I had never seen a case where the deposits developed so rapidly. To remove these muscular inflammations it took this time three to four months and I hope they are removed for good. The sensations of dizziness and the other symptoms had disappeared long before the muscular inflammations.

It is interesting to note that in all these cases the myositis has been diagnosticated as if there existed a relation of cause and effect between the intra-cranial and the extra-cranial congestion. The presence of other rheumatic manifestations and the constant presence of congestive signs made the idea of a simple coincidence illogical.

This clearly proves the existence of congestive ceph-

alalgias due to muscular inflammations of the neck which can be cured by massage.

Following are the observations on headache already alluded to:

#### OBSERVATION I.

*Continuous Cephalalgia, of One Year's Standing.—Tenderness along the Cranial Insertion of the Trapezius.—Local Puffiness of the Scalp.—Massage.—Cure.*

Mr. D., 50 years old, whom I have had the opportunity to treat several times for rheumatoid affections in different parts of the body, suffered for the first time from cephalgias during his stay at Biarritz in the Autumn of 1885. The pain, confined to the right side of the head, radiated to the supra-orbital region on the same side. It is not acute, but rather bearable. It is almost constant, and begins in the morning, shortly after the patient has gotten up, but does not continue during the night. As this patient's daughter had been cured by massage of a migraine of several years' standing, which depended on the presence of muscular indurations in the region of the nape of the neck, he himself tried to find out if his cephalic pains did not have the same origin and discovered behind his right ear a spot more sensitive to pressure than the rest of the nape. Frictions performed at this place seemed to relieve him. Since his return to Paris he daily experiences the same pain as at Biarritz. I saw him the following year in November. I easily detected an induration of the size of a small hazel nut in the right splenius in the neighborhood of the cranial emergence of the smaller occipital nerve, swelling of the scalp in the occipital region of the size of a 25-cent piece. No tenderness on pressure along the supra-orbital and smaller occipital nerves.

On the left side, near its cranial insertion, the trapezius is the seat of a beginning inflammation. Pressure over this area is not very painful. After one sitting, I succeeded in having the pain disappear for several days. After a week it reappears, but is much less violent than before and lasts only three days. Complete cure after four weeks of massage. The deposits of muscular induration and infiltration of the scalp have disappeared.

During the six months which followed the treatment there was no relapse.

OBSERVATION II.

*Cephalalgia for Fifteen Years.—Three Kinds of Attacks, the Two Very Acute and the Other Subacute.—Muscular Indurations at Different Parts.—Tumefaction and Pain in the Cervical Ganglia of the Sympathetic Nerve.—Massage.—Cure.*

Mr. T., of Argentina, 50 years old, came to see me October 2, 1887. For 15 years he had suffered from violent headaches, for which numerous injections of morphine had been given, the marks of which may still be seen on his right arm. This patient had consulted several celebrated physicians in Europe and America; numerous opinions were given on the nature of his affection. Cerebral congestion or anaemia, rheumatism of the scalp, general neurosis with cephalic localization, reflex neuralgia, having the stomach as a starting point, were diagnosticated. None of the treatments tried produced anything but a temporary relief. Electricity, hydrotherapy, change of air, watering places, Schrott's regime, quinine, aconitine, gelsemium, coffeine, bromide of potassium, nitrite of amyl, antipyrine, had all been tried without any or at the most with insignificant results. Injections of morphine alone succeeded in relieving, but the dose had to be increased to such an extent that finally it produced toxic symptoms. The patient was all the more hopeless, as he considered his neurosis hereditary; his mother, father and sister had all had neuralgia of the same locality, although not of similar intensity.

Even at the beginning, the attacks were painful, but for some years they had become almost intolerable and extended over the entire head. The attacks vary in character; some of them developed with the rapidity of lightning and became generalized after a few minutes. They begin on the right side, but very quickly pass to the left. They are of neuralgic character, acute, shooting, coming on without premonitory symptoms, sometimes even when the patient is out walking; they generally begin in the morning. If they do, they increase in intensity until the evening and pass to the side, opposite to where they began. These attacks go on, becoming weaker, until the evening of the following day. They are of very frequent occurrence during the cold season, almost weekly. Being less violent than those about which we are going to speak, they do not prevent the patient from sleeping. In these the whole head is affected, but the pain is especially violent in the temples, less so in the forehead, but more marked on the right side. Its progress is quite different from that of the first one; this latter begins suddenly; the second one, on the contrary, is preceded by a sensation of heaviness, which gradually spreads either towards the nape of the neck or towards

the temple, and invades the whole of the head within several hours; the increase of the intensity follows the same gradation. During these attacks the face becomes flushed and the pulse is accelerated; quinine does not produce any effect.

For about four or five years these last attacks succeeded each other regularly, with intervals of three weeks. The patient suffers excruciating pains for 24 hours, he can neither eat nor sleep; this is the time he wants injections of morphine. The attack is followed by prostration and gastric disorders, which probably depend on the absorption of the morphine. The whole head is affected, but the maximum pain corresponds to the orbito-frontal region; when the paroxysm is over, there remains a diffuse tenderness of the head, more marked along the nerves.

Finally, the third variety of pain, isolated and different from the preceding ones, only exists in the right temporal region. It is easily caused by a draught, which strikes the region directly. It remains localized, but lasts only eight or ten hours. This pain is manifestly of rheumatic origin.

Here are the local alterations which I was able to find in my diverse examinations: On the right side, behind the mastoid apophysis, marked and voluminous muscular, induration. In the trapezius, towards the middle of the nape of the neck, another induration less resistant and probably more recent. When a good deal of pressure was exerted at this place, the patient felt violent pain at the top of the head and above the orbita. A lymphatic ganglion of the neck was enlarged and painful on pressure.

The upper cervical ganglion of the sympathetic nerve is also swollen and very painful on pressure. When firm pressure is exerted the patient complains either of pain at the top of the head or else of a sensation of very painful epigastric constriction or of vesical pains. The middle cervical ganglion presents similar alterations. There are hardly any changes in the lower cervical ganglion. Very marked hyperaesthesia along the supra-orbital and naso-ciliary nerves.

On the left side there is almost symmetrical induration behind the insertion of the sterno-mastoid.

Small resisting nodule in the body of one of the scaleni; very marked resistance in the trapezius on a level with its insertion into the scapula.

The upper cervical ganglion on this side presents the same swelling and the same pain on pressure as the one on the right side. These phenomena are much less marked on a level with the middle cervical ganglion.

Along the supra-orbital nerve, corresponding to the place where

it emerges from the orbit, on the right side, I feel a hard, thick and resistant cord. The same phenomenon is observed on the left, but in a less marked degree.

On the right, in front, the upper attachment of the temporal muscle is extremely painful on pressure. This pain differs from the one which is felt in the other regions; it is extremely violent; the patient says that he feels as if a knife were driven into his head.

At his solicitation, I began massage, but I dared not promise anything, on account of the intensity of the affection, the extent of the lesions and the long duration of the disease. The first sittings were very painful, but the patient soon became used to them; after three weeks the treatment was well tolerated. All the affected parts were successively massaged during every séance. During the first six weeks I did not obtain the slightest amelioration.

Fortunately, the patient, convinced that massage would be useful to him and discouraged by the multitude of treatments which he until then had followed in vain, persisted, with rare energy. By and by there were periods of amelioration, followed by attacks similar to the former ones. Then, these periods of rest became longer, but unfortunately the attacks remained as painful as before. After two and one-half months' treatment the improvement became evident. There were no more violent attacks, occurring with regular periodicity, the other attacks were also rarer and less intense. The pains remained unilateral and disappeared in the course of the day. During the whole duration of the treatment it was possible to predict the onset of new attacks by the degree of tenderness over the ganglia of the sympathetic nerve and the indurations of the sterno-mastoid muscle. When this sensitiveness was increased, a crisis almost surely followed the following day. Three months of treatment was necessary before the patient could be considered cured. He declared that he felt for about three weeks only a temporary and slight pain in the right temple, and this because he had been exposed to a draught.

Nothing more is found in the ganglia of the sympathetic nerve. The changes in the sterno-cleido-mastoid muscle were more obstinate than the rest. These, however, disappeared after very energetic massage. The inflammation of the temporal regions was more easily cured. There were, as we have seen, serious relapses even during the treatment. I was persuaded that all would be well during the summer, but fearing new attacks at the coming on of the cold season, I advised him to call on me in the autumn, if anything caused him to fear new attacks. I have not

seen him again, and I have heard that when he started for Argentina, the following December, he was all right (I heard from this patient through one of his commercial correspondents in Paris, in March, 1890. He said that he very rarely felt headaches, and those which he had were very slight and did not prevent him from tending to his business).

### OBSERVATION III.

*Cephalalgia since Childhood.—For Some Years, Monthly and Then Weekly Paroxysms- Similar to Attacks of Migraine.—Indurations of the Nape Corresponding to Several Muscular Insertions.—Tenderness to Pressure Along the Supra-Orbital Nerve.—Massage.—Cure.*

Mrs. C., 55 years old, thin, pale, never complained of any other indisposition except of pains coming on off and on all over the body. She came to see me at Ragatz during the Summer of 1886, on account of headaches, which she had suffered from since her eighth year. From her twelfth year the pains were dull, heavy, localized in the frontal region; they only came on after diligent and rather long intellectual work. Electricity methodically applied produced only passing relief. These attacks were attributed to anæmia. She took iron, quinine, arsenic, but without effect. Since that time the cephalalgia changed its character; it assumed the acute paroxysmal character of migraine attacks. There was generally one crisis a week, sometimes more, which lasted two days. During the winter, 1879-1880, when she was staying in the South of France, the affection seems to have gotten worse. She had hoped that the menopause would produce a diminution or complete cessation of the pain, but this hope was unfulfilled. Since the menopause she suffers more than ever. Fourteen years ago, during a pregnancy, she even felt considerable improvement.

During the month which preceded the epoch at which I saw her for the first time she had had four attacks. The periods of delay are only of insignificant duration. The crisis begins in the morning when she gets up, attains its acme at about 12 o'clock; is of the same intensity for two hours; then all becomes calm. She does not suffer during the night. On awakening the following day the attacks are reproduced in the same order as the day before, but she does not suffer quite so much. The pains are of equal intensity on both sides of the head; they always begin on the right; she does not feel anything in the nape of the neck. Everything begins at the vertex; then the pain is propagated towards the forehead, the orbits and the temples. It is at this moment that the

crisis is at its acme. The eyes are red and weeping; there is photophobia; the eyelids are heavy. The slightest noise is unbearable; she cannot bear to hear a conversation or footsteps in a room next to the one where she is, without suffering increased pain. There is no vomiting, but nausea during the attacks. She is relieved when she goes to bed and is able to fall asleep. There is such tenderness of the scalp that she can hardly bear the pressure of the pillow. She lost a good part of her hair; the pains are in no way modified by the change of climate or season; she suffers as much in Summer as in Winter. Late hours, depressing emotions, digestive disorders are almost sure to provoke an attack. These are especially painful in travelling by rail. For several years she has been obliged to live in retirement and to avoid all social invitations. She has taken bromide of potassium several times, but it only produced temporary amelioration. She has had recourse to antipyrine. At the beginning she was somewhat relieved, but for several months even big doses did not produce any effect. When I examined her for the first time I found a very marked induration in the neighborhood of the cranial attachments of the splenius on the right side. On the same side, very strong resistance of the sterno-mastoid muscle, a little behind the attachment to the mastoid apophysis; it is very sensitive to pressure; the pain caused by the pressure radiates towards the top of the head. There also exists a deposit of induration on the left side, along the attachment of the trapezius to the skull. Very extensive tumefaction of the aponeurotic sheath in the region of the occipital protuberances; slight tenderness along the supra-orbital nerve in the right frontal region. Treatment by massage of the indurations. The patient tolerates it well and does not interrupt it, except during some days she was obliged to absent herself. After a fortnight there is marked improvement; this increases, and after two months and a half treatment the patient declares that she is cured. She has not had any attack of cephalalgia for a fortnight, which had never happened to her before. The indurations had entirely disappeared.

I saw her ten months after the treatment had been stopped. For six or seven months she had been quite well, but for the last three months she had had occasional slight headaches. These attacks are, however, rare and cannot be compared, neither in duration nor intensity, to what they were formerly. In examining her, I find that a slight swelling has reoccurred at the insertion of the sterno-cleido-mastoid muscle. After three weeks' treatment it disappeared. I have quite recently (October, 1889) heard from her through a friend living in Paris. The cure had been

permanent. She is able to go out into society and only very rarely complains of slight headaches.

#### OBSERVATION IV.

*Cephalalgia since Childhood.—Attacks Due to Various Influences.—Muscular Indurations in the Nape of the Neck; Myositis of the Upper Insertion of the Temporal.—Massage.—Cure.*

Mrs. M., 27 years old, a Swede, consulted me in March, 1888. Her headaches date back to such a remote period that she cannot tell precisely when they began. She suffered during childhood, but more frequently from 14 to 16 years of age. This lady, who is a painter, attributes her headaches to her sedentary occupations; she is also very anaemic.

At the beginning the pain had its seat exclusively in the frontal region, but by and by it extended to both sides of the nape of the neck. It is generally dull in character, but from time to time it becomes more acute and shooting in character. She lives in Paris for the last few years. The pain was rather aggravated through this change of abode. At present the pain is confined to one side or other of the neck. It is propagated forward toward the forehead and the eyes, which become red.

Change in the weather, and especially fogs, exert a bad influence. She feels better during the summer at the seaside. As she has to go to museums frequently, this will frequently provoke an attack. For the same reason it is impossible for her to go to theaters. When she bends her head to one side and wants to straighten it again she feels a sort of crackling in the nape. From time to time a swelling is produced behind the ear. Sensation of heat and a sort of heaviness will soon spread over the back of the head.

She cannot go out early in the morning without suffering from headaches. They begin by heaviness of the head and then gradually increase, so that in the afternoon she is in the middle of the attack. These attacks continue for a greater part of the night, until she is exhausted from fatigue and sleeplessness. For some months she has had two attacks a week. The pain, always less acute at the beginning, presents a pulsatile character; later on it is shooting in character. During the whole attack she has difficulty in lifting her arms, especially the right one. From time to time she is subject to attacks of vomiting, produced by pain, which is violent enough to make her cry out. She used cold compresses; coffee, and the continuous current for five weeks. After this treatment

she felt improved for two months, but the pain reappeared very soon with the former intensity.

Behind the mastoid apophysis, on the right side, there was a place of tenderness on pressure. Another one existed in the trapezius (small ellipsoid surface about the middle of the region of the nape of the neck). On the left side a marked swelling on a level with the cranial attachments of the splenius and the trapezius. On the temporal region, violent pain, corresponding to the cranial insertion of the temporal muscle. The same kind of pain exists on the right side, but it is less violent. Nothing along the supra-orbital nerve nor along the other muscles of the cranium. Massage not well tolerated at the beginning. After three weeks the treatment is easily borne. In the course of it there were ameliorations, followed by relapses and exacerbations. After eight weeks the patient ceased to come regularly. The improvement, however, continues so that she considers herself cured. I saw her in June, 1891. She was quite well and much satisfied with the result.

#### OBSERVATION V.

*Cephalalgia of Twelve Years' Duration.—Alternately Frontal and Occipital Pains.—Indurations on a Level with Several Muscular Insertions to Cranium.—Tumefaction of the Sub-occipital Ganglia.—Tumefaction and Pain Corresponding to the Cervical Ganglia of the Sympathetic Nerve.—Massage.—Cure.*

Mrs. R., 28 years old, suffers since twelve years from violent cephalalgia. Combined with indefinite pain in the loins and right arm, the headache has not changed its place since it began. It always has its seat in the right temple and radiates to the orbit on the same side. This pain is so violent that it does not give the patient any rest even during the night. It seems to her as if her eye was being torn out; it becomes red and gets watery. No pain in the frontal region. Sometimes, when the attack is more violent, the patient feels acute pain in the neck. This pain is very limited and corresponds to the cranial point of emergence of the lesser occipital minor nerve. It is lancinating in character and is produced some time after the onset of the pain in the temple. The attack lasts only a short time, from one to two hours. There are two, even three attacks during the day, fewer during the night. In the intervals of the attacks the head feels heavy. The pain is almost always, confined to the right side; it rarely passes to the left; it does it is always very insignificant.

No dyspeptic phenomena. Wind, rain and cold multiply and intensify the attacks. During summer the patient does not suf-

fer, but as soon as the fogs in the autumn come on she experiences pain. These may last for several days. Since she has lived in Paris (only a short time) the pain has increased in frequency and intensity. It is attended by a sensation of depression and disgust for life.

Aconitine, quinine, antipyrine, iron, galvanization of the sympathetic nerve were tried. This last medication was the only one that gave a satisfactory, although only temporary, result.

(September, 1890,) I find in the splenius on the right side, near its cranial insertion, a muscular induration of the size of an almond, the limits of which are very distinct. Two ganglia in the neighborhood are swollen, as well as the mastoid region on the same side, which is very sensitive to pressure, corresponding to the sterno-mastoid attachment on this side. At this level the scalp and the subcutaneous cellular tissue appear rather thickened. No tenderness over the supra-orbital nerve. Swelling and very marked sensitiveness on a level with the upper attachments of the temporal muscle, especially in the front. The middle cervical ganglion of the sympathetic nerve is swollen and painful on pressure. On the left side there is tenderness on pressure, on a level with the upper cervical ganglion; there is less tenderness on a level with the middle one.

Massage is painful. Pressure on the above-mentioned muscular induration of the nape causes pain in the bottom of the orbit, similar to the pain produced during the attack.

After a week's treatment the pains cease and return only after a fortnight or three weeks. There are not violent, and last only a day. It is a heaviness in the head rather than a headache. Massage not painful during the latter part of the treatment. After seven weeks, complete cure.

The deposits of muscular induration have disappeared. No tenderness on pressure on the ganglia of the sympathetic nerve. I heard from this patient at Ragatz in the summer of 1893. Her condition remained well.

#### OBSERVATION VI.

*Cephalalgia of Ten Years' Duration.—Indurations at the Insertion of Different Muscles of the Neck.—Massage.—Cure.*

Mrs. D., 26, always had headaches since she first menstruated. When she was about 20 the pains were relatively slight. Since then they have increased in intensity. Married at 22, she has had two children. During her last pregnancy the headaches were so violent and obstinate that even injections of morphine did not

relieve her. The attacks, which were irregular, generally occurred twice a week; they began in the morning, at about 2 o'clock, and only ceased the following day in the evening. The patient feels relieved immediately after a meal, but an hour afterward the pain becomes more acute than it was before. Changes in weather, and especially the approach of snow, invariably seem to provoke attacks. She suffers as much during the hot weather as in winter. At the time of the attack, her head, face and scalp are burning. The patient feels relieved when compressing her head with both hands. There are tingling in the ears and stiffness of the neck. If the patient is able to get up, walk and work, she feels considerably relieved.

The pain is frontal in character and radiates to the bottom of the orbital cavity, behind the eye. Here it is violent and shooting in character; the eye itself is spared. In the neck there is bilateral shooting pain, more severe on the left side. Sometimes this localization alternates with that of the forehead; when the patient ceases to suffer in front, the sub-occipital and sub-mastoid regions are affected. It is at this moment that she complains of tingling in the ears. A greater part of her hair has fallen out. She succeeds in relieving the slight attacks by sulfate of quinine. In the more severe ones she has to resort to antipyrine and injections of morphine. For two months the latter have not had the slightest effect. She tried several cures at mineral stations, among others, Aix-les-Bains, without any result. In examining her in June, 1886, I find several changes in the tissue of the nape and the shoulders. Also indurations corresponding to the mastoid insertion of the sterno-cleido-mastoid muscle, on the left, and to the splenius and the upper edge of the trapezius (on both sides). Nothing abnormal in the supra-orbital and nasociliary nerves. Five attacks after the beginning of the treatment; besides two or three times she was threatened in the morning, but all disappeared during the day. The tingling does not exist any longer; the attacks did not reappear for a long time; the patient can be regarded as definitely cured. The duration of the treatment was six weeks, during which time she had forty-two sittings. I received word from this lady, December, 1889, that she was perfectly well.

#### OBSERVATION VII.

*Cephalalgia for Sixteen Years.—Multiple Muscular Indurations.—Tumefaction of the Middle Cervical Ganglion with Pain on Pressure.—Massage.—Cure.*

Mrs. C., 40, came to see me in the course of 1888 for a cephalalgia, which she had suffered for sixteen years. When she

was 24, during her first pregnancy, she began to complain of the pains of which she now complains, but in a milder degree. She attributed all to her condition and to fatigue, but the attacks did not cease with the pregnancy. On the contrary, they became more frequent and took more or less the form of classical attacks of migraine. They generally began in the morning, shortly after she had risen; the pain started in the nape of the neck on both sides. After an hour or two it extended over the entire head, increased in intensity and reached its maximum at about 4 o'clock. The pains, dull at the beginning, soon became acute and shooting and radiated in all directions. The head was hot, sensitive to touch; the pressure of the pillow was difficult to tolerate. It seemed to her as if her hair stood on end. The face was red and swollen; she felt violent pulsations in the temporal regions; no nausea. The patient feels much better when she is up and working. Gentle frictions of the head relieve here. Towards the evening she falls asleep overcome with fatigue. On awakening after the first sleep she always feels pain. The following day the attack is over and she only experiences general weakness. Most frequently the attacks are produced by atmospheric changes, damp or cold weather, a gust of wind on the nape, especially when the change is sudden, and the patient is perspiring. She says that in these conditions she often got torticollis.

Attacks also come on easily when she has been reading for a long time, or sewing on a white background or looking at pictures in museums. Her eyes get gradually tired, the pain extends to the frontal region, and radiates to the whole head.

Since four or five years the pains seem to have changed. The real attacks exist no longer. The patient awakes with headache; it at once attains its maximum of violence; much less violent, however, than formerly, although it lasts longer. When I saw her for the first time in the year 1887 she had suffered without interruption for two months; sometimes in the night, as well as in the day. The pain was insignificant in the course of the later pregnancies; it became violent, however, and almost unbearable during nursing. The patient, who had followed various treatments and frequented several mineral places, felt only slight amelioration after a stay at La Bourboule. Galvanism, tried for a long time, increased her pain to such an extent that the treatment became intolerable. Morphine, quinine, antipyrine, antifebrine were not more easily tolerated, and did not give any better results. On the right side, a muscular induration of the size of a nut is found in the upper edge of the trapezius; when I pressed on this spot the patient complains of an acute pain on the

top of the head. Resistance, very painful on pressure, in the scapular. Middle cervical ganglion swollen and painful. On the left, in the thickness of the trapezius, small lump, of the size of a dime, corresponding to the cervical portion; another induration on a level with the insertion of the sterno-cleido-mastoid muscle. The skin and the subcutaneous cellular tissue are the seat of a chronic infiltration. The scalp in the occipital region is infiltrated and highly swollen. The upper and middle cervical ganglia (especially the middle one) are swollen and painful. Nothing in the nerves of the scalp. As I have already said, the patient had continually suffered for two months at the beginning of the treatment she had no attacks during the two or three weeks following. During the whole course of the treatment (about two months) three slight and short attacks. At the end of the treatment nothing remains of the muscular alterations, but the greater part of the infiltration of the scalp persists. The occupation of the patient does not allow her to stay any longer in Paris. As we were approaching summer, I made the remark that she probably would be well during this season, adding that a return of her attacks is, however, to be expected at the end of autumn. I saw her in the beginning of November; she told me that she had been quite well until October. Since the end of the treatment she had only had three very slight attacks, which had not lasted more than from 8 to 12 hours; they had been provoked by a sudden chilling of the neck. Some muscular deposits were partly reproduced. Three weeks of treatment were sufficient to cause everything to disappear. I heard from this patient March 15, 1890. Complete cure had been maintained.

#### OBSERVATION VIII.

*Cephalalgia for 22 years.—Indurations Corresponding to the Cranial Insertions of the Muscles of the Neck and the Fleshy Part of Different Muscles.—Swelling and Tenderness on Pressure of the Upper and Middle Cervical Ganglia of the Right Side.—Massage.—Cure.*

Mr. M., 34, Englishman, came to see me in March, 1889, for a cephalalgia which he had suffered from since he was 12 years old. At that period he often had attacks of neuralgia, which lasted two or three days. He cannot tell whether intellectual work has anything to do with them. It was believed that it was idleness and feigning, because he often complained of not being able to work on account of the headache.

Since then the pains have changed neither in their character nor in their seat. The attack always began by a painful sensa-

tion in the frontal region, which little by little extended to the whole head. He suffers equally in summer and winter; the attack comes on pretty regularly, generally every fortnight; sometimes only once a month; but it never lasts more than one day. It begins habitually in the morning, when he is in bed, in the above-mentioned region. After half an hour the whole head is affected. The pain increases up to about 12 o'clock, and it ceases almost suddenly, without leaving the slightest disagreeable sensation. During the attack it seems to the patient as if his head were pressed in a vise. All changes in diet and especially indigestions, are followed by very violent attacks, so that these attacks were believed to be gastric vertigo. During the attacks, quiet and rest considerably diminish the pain.

There are never any pains in the eyes, but some dimness of vision. Having suffered so much, he has become nervous, irritable; the slightest thing disturbs his temper.

The patient, who is a talented writer, well known in England, cannot do any assiduous work. Lately he has taken sulphate of quinine in large doses, without any results; aconitine only produced a passing amelioration; blister behind the ears without results; the actual cautery has not succeeded any better; he has made use of several mineral waters without any benefit.

On the right side the whole region corresponding to the cranial attachments of the muscles of the neck is painful; indurations to the length of one centimetre or even more are present in some places. On the level of the mastoid apophysis there is a very hard swelling, tender on pressure. Both upper ganglia of the sympathetic nerve, especially the middle one, are swollen and painful to touch. On pressure frontal pains are provoked similar to those which exist at the moment of the attack. The supra-orbital nerve is almost insensible to pressure on both sides.

On the left side tumefaction and induration on a level with the scapula. Some of the neighboring lymphatic ganglia are increased in volume. Middle cervical ganglion swollen and painful on pressure.

Massage. After a month, the attacks are as violent as ever; in less than half an hour all is over. A fortnight later the same phenomena are reproduced, the attack begins, but does not go on. After two months complete cure; the above-mentioned alterations no longer exist. I received word from this patient at the end of September. During the six weeks which followed the treatment he had two slight and incomplete attacks. Since that period there have been only threatening attacks at long intervals; the nervousness has diminished and the patient can without difficulty tend to his work. There no longer exists any

tumefaction of the lymphatic ganglia. I received word from him in November, 1892. He is quite satisfied with the result obtained and has but rarely been reminded of his old trouble.

#### OBSERVATION IX.

##### *Cephalalgia for Three Years.—Various Indurations.—Massage.—Cure.*

Miss G., 28, came to see me at Ragatz during the Summer of 1888. Of rather weak constitution, she presents different deposits of muscular rheumatism (myositis) in the neck.

For three years she had suffered from cephalalgia. The attacks, which were rather infrequent and relatively slight, did not prevent her from tending to her occupations. Eight months ago this cephalalgia became more severe. The attacks, still very infrequent, principally occupied the region of the nape. Since four months no day went on without her suffering more or less from headache. The pain, without being very violent, gradually spread over the whole scalp. Most often it is dull and not violent, but from time to time, under the influence of a cold gust of wind on the nape of the neck, the patient feels twitches—a sort of lightning running through the head in all directions. The pains most often begin in the nape, especially on the left side, and gradually radiate forward as far as the orbital edge. At this moment she feels such an itching of the conjunctival mucous membrane that it is almost impossible for her to raise the eyelids. There is some visual disturbance; it seems to her as if red spots (plaques) were floating before her eyes. These phenomena are only produced during violent attacks. Sometimes the pain persists the whole night and prevents the patient from sleeping, but most often she gets rid of it in the evening. The seat of greatest pain is very variable. One day it is in the nape of the neck; the following in the temples; the day after it is on the top of the head. The painful sensations are not always the same; sometimes it seems to her as if her head was burning; other times she complains of a creeping sensation under the skin. The pain begins either in the morning or at any time of the day. Some days it begins a short time after the patient has gone to bed. Generally the attacks appear and are more violent at the menstrual periods. She suffers more when the weather is damp and cold, especially when she attends social functions. The attack is almost always attended with nausea; she feels relieved when she can eat. During the attack she becomes very pale and has a desire to move about; the digestion

is not satisfactory. When it is painful in the evening an attack is almost sure to follow. Firm pressure of the head between the hands and frictions performed in the neck relieve her. The pains tire her out a good deal; she is weak and suffers from anaemia. For two months she has been using electricity, which only produced a passing relief. Lately she has for several weeks been treated with antipyrine; no result was obtained from it, and after some time she was unable to bear the treatment.

Almost all the muscles of the neck are affected by a moderately advanced myositis to a great degree. There is diminution of elasticity; resistance, without properly called induration. The external edge of the cervical portion of the trapezius and scaleni is more affected than the rest, especially on the left side. The temporal muscles are also affected. Palpation is painful; the patient feels as if a knife were driven into the thickness of the neck. Puffiness on the left side corresponding to the muscles of the nape and extending over a rather large surface.

Massage, improvement and relapses. After three weeks the improvement becomes more marked. The intervals of quiet are longer. the pains are less acute and the patient is cured after six weeks; she had no headaches for twelve days. The muscular inflammations and the tenderness on pressure on the ganglia have disappeared. I saw this patient again October, 1892; she had had two attacks during the six weeks which had followed the treatment; after those she had no more.

#### OBSERVATION X.

*Habitual Frontal Cephalalgia with Paroxysms Resembling Attacks of Migraine.—Muscular Indurations.—Pain Along the Supra-orbital Nerve.—Massage.—Cure.*

Miss S., Swede, 23, suffers for three years from violent cephalalgia, which began in the left frontal region and then soon invaded the whole head. A violent exacerbation came on in the course of a stormy voyage from Sweden to France. This new attack lasted a fortnight; the cephalalgia remained frontal, at first unilateral, then bilateral.

After the disappearance of the attack the pre-existing dull cephalalgia continued. This patient is at the seaside during the summer of 1884; she has photophobia every day; her eyelids are so heavy that it is almost impossible for her to open her eyes. The pain is constrictive; the patient feels as if she had a very tight ring around her head; she always suffers more on the left side. Since some months the maximum pain has passed from the fore-

head to the vertex. Physical or mental fatigue, emotion, coughing, sneezing, are sufficient to produce an attack. The pain is more acute before the menses, it is diminished when the menstrual flow has begun. Changes of weather are without any influence. After a rather long journey she is so ill that she has to stay in bed for some days. The gastric disorders from which she suffers from time to time do not provoke an attack. Generally of a pale complexion, her face is flushed when she suffers from an attack. She feels relieved when she can go to bed and sleep. Continuous currents for months without any results; sulphate of quinine by the month did not succeed any better. I find a painful swelling behind the mastoid apophysis on both sides; another one exists on a level with the cranial attachment of the left trapezius. Pressure on this point is felt as far as the frontal region above the eye on the same side. The supra-orbital nerve in its upper course and for the length of 6 centimetres, is the seat of very acute pain on pressure, which is more marked as we get nearer to the eye. There is induration along the nerve, corresponding to a visible cord. No tenderness on pressure on the ganglia of the sympathetic nerve.

Massage in the spring of 1895. During four weeks no result is obtained. The most obstinate change to yield is the one which corresponds to the supra-orbital nerve, but, in spite of all, it disappears. After seven weeks' treatment the patient experiences a complete remission for a fortnight; she considers herself cured.

I saw her again in Paris the following autumn. She was still doing well and had been at the seaside in the summer without feeling the slightest pain. I saw her again several times in the course of the winter; the cure was permanent.

#### OBSERVATION XI.

*Myositis of the Scaleri.—Cervical Ganglia of the Sympathetic Nerve Painful.—Several Lymphatic Ganglia Swollen.—Cephalalgia with Paroxysms for Ten Years.—Massage.—Cure.*

Miss T., 24 years old, Italian, came to consult me for the first time in December, 1889. She was pale, anaemic and seemed to suffer a great deal. The pains always began in the right lateral half of the neck, and soon extended up behind the ear to the vertex. They are not violent at the beginning, but before long they become extremely painful; then the head is bent towards the affected side. This position is retained as long as the attack lasts—*i. e.*, from 24 to 48 hours. When the attack is over, the patient feels very much prostrated from the pain and want of

sleep. The pain is acute, shooting; the patient feels as if she were being pricked with needles in the side of the neck. Lately she had two attacks a week. From year to year the pains have increased in intensity. Emotions, changes of weather, exert a considerable influence on the attacks; a cold draught is sufficient to provoke one. She never rides in an open carriage, except in hot weather. On examination of the neck, I find in its right half several swollen lymphatic ganglia, painful on pressure. The scalenus medius on the same side is the seat of a chronic myositis; in most of its extent violent pain on pressure. Massage at once produced a complete cure after two months, as the following letter, which the patient wrote to me from her home May 23, 1890, shows:

"Ten years ago—I was then 14 years old—I began to feel from time to time some pains on the right side of the neck, which were diagnosticated by the physicians as neuralgia. At that time the attacks occurred about two or three times a year, but they became more frequent and more and more painful from one year to another, and the diseased part became more indurated after each attack. In Rome, my physician attributed these neuralgias to the climate and for a long time advised quinine and other febrifuges. As these yielded no results, I had for several weeks local injections of phenic acid, but all these modes of treatment had no effect. In Paris I consulted other doctors who found the presence of the glands of the neck, declared that I was scrofulous and attributed the pains to the lymphatic state of the blood. On this account I was sent to Kreuznach (Germany) for two seasons, but the treatment only momentarily relieved me. Last year, my affection having grown much worse, I had occasion to consult Dr. Landovsky, of Paris, who earnestly advised me to try a cure with Dr. Norström. I followed his treatment for six weeks. During the first sittings I suffered more, and could hardly tolerate the pressure of the finger on the diseased part; but after a fortnight I began to feel real progress, and long before the end of the treatment I did not experience the slightest painful sensation. It is now four months since the treatment was stopped, and I do not feel any trace of the pains which had made me suffer so much for ten long years."

To this I may add that at the moment when she stopped the treatment there was no trace left of the muscular inflammation. The tumefaction of the ganglia produced by the myositis in the neighborhood was almost gone.

Her father, who came to see me in the spring of 1893, informed me that her condition had remained the same.

OBSERVATION XII.

*Very Voluminous and Hard Deposits of Myositis Behind the Right Ear; on the Left, Smaller and Softer Ones.—Tumefaction and Sensitiveness Along the Attachment of All the Muscles to the Cranium.—Both Upper Ganglia of the Sympathetic Nerve on the Right Swollen and Tender on Pressure.—Case of Very Long Standing and Great Intensity of Pain.*

Mrs. R., 55 years of age, married to an ex-president of the Tribunal de commerce, and belonging to a family of note in Paris, suffers from headaches since her fifteenth year. Besides this trouble, she complains of ill-defined pains which she feels from time to time in the whole body, and which she attributes to rheumatism. Up to the age of 50, corresponding to the time when she reached the menopause, the pains had been relatively tolerable; they only came on once a week, or at the most, every four or five days. These pains seemed to her to have a tendency to get more frequent as she approached the period which we have just spoken of. After that period, instead of seeing her disease get better, as the physicians had told her, she suffered even more. The pains not only increased in intensity, but the attacks became so frequent that almost no day passed by without suffering, and she was obliged to stay in bed; sometimes the pains did not even leave her during the night, and prevented her from sleeping. As to social life, she could not participate in it, and if she by chance was obliged to do it and accepted an invitation, she paid dearly for it the following day with a fearful attack. She suffered as much in summer as in winter. Great fatigue, exposure to cold, winds or draughts on the neck are apparently the only causes of an attack. The pain, which was most of the time acute and shooting, almost always originated in the right side of the nape of the neck and radiated forward to the forehead, not involving the eye. After one or two hours it passed over to the other side, but did not assume such intensity. It rarely remained unilateral. At the same time the patient complained of a pain in the temporal region; she felt as though her head were being pressed in a vise. The pain was apt to come on at any time of the day, but she most often felt the headache on awakening. It would increase and only very late, at about 4 or 5 o'clock, begin to diminish, so that in the evening she was generally free from it; but sometimes, as I have already said, it continued during the night. This generally happened when the attack began late in the day. The patient felt relieved when she instinctively rubbed the nape. Of internal medications employed, such as quinine,

aconitine and antipyrine, the last two only produced any relief; but as she got used to them after a few months, they too were without any effect. Three years ago she also tried electricity (galvanization) for three months without any result.

On examination, March, 1892, I found a deposit of myositis behind the right ear; it was voluminous and hard, and corresponded to the upper attachment of the sterno-cleido-mastoid muscle; below, it was very marked. It was sensitive to pressure; the patient felt violent pain in the region of the forehead, similar to that she experienced at the moment of the attack. There was another deposit in the trapezius on the same side, at about two fingers' breadth from its attachment to the cranium. It was of the size of a small almond, and occupied an almost horizontal diameter. On pressing it, the patient experienced acute pain in the top of the head. Tumefaction and pain on pressure along the attachments of all the muscles to the cranium. The same applied to the upper attachment of the temporal muscles, especially in front. Both upper ganglia, especially the first one, of the sympathetic nerve of the neck were swollen and sensitive to the touch.

On the left side induration of smaller size, and much softer than at the same place on the other side—that is, in the upper portion of the sterno-cleido-mastoid muscle. The first ganglion is rather swollen. The upper attachment of the temporal muscle, especially in front, swollen and sensitive to pressure. This takes place only during the attack; at other times the patient has no pain on pressure and nothing can be felt here. Massage succeeded marvelously well, in spite of the particularly deep-rooted character of the case, as a letter which I received at the end of March, 1895, shows, and which I want to add to this observation.

This is what she writes:

"I take great pleasure in repeating that after three years I continue to be free from those terrible migraines which from my fifteenth year have troubled my existence for 40 years. They had even increased the last five years. Since I came to you, after hardly a month, I marvelously profited by massage; my singular susceptibility to everything disappeared, and every day I felt more relieved. And finally, after three months' treatment, I have been quite well and in perfect health, as regards the pain in my head."

To these lines I only want to add that even after the first séance, the patient did not feel anything for a fortnight; that she had, five attacks while the treatment lasted, the last one of which took place ten days prior to the end of the treatment, and was as violent as any of the others.

The muscular deposits and especially the one situated behind the right ear were always more swollen and sensitive to pressure the day preceding the attack, which fact caused the patient to remark: "To-morrow I will surely have my attack." She was not once mistaken. The state of nervousness into which the patient had fallen through so many years of suffering, was relieved, and she could begin to enjoy life. As to the muscular inflammations, there is no trace left of them; it is the same with the ganglia of the sympathetic nerve. I saw the patient for the last time the first days of October, 1898, and she told me then she had suffered from headache only one afternoon since the time she saw me last.

#### OBSERVATION XIII.

*Constant Persisting Dull Pain.—Scaleni and Trapezius Affected.  
—The Deposits of Myositis in a Moderately Advanced Stage.—  
Cure After Three Weeks of Massage.*

In September, 1893, a Swiss lady, Mrs. B—n, whom I had formerly successfully treated for migraine, came to see me in Ragatz with her daughter, who was 14 years old, and who had constantly for two years suffered from headache. On examination I found muscular inflammations of the nape, but not in an advanced stage. I told her that I was almost sure to rid her of her pains, but I added that I had not much hope of obtaining a definite result in the short time (three weeks) which remained before I was obliged to leave Ragatz for Paris. At her solicitation, the treatment was, nevertheless, begun.

As the patient was very studious, the headaches had been a great obstacle to her education, and prevented her from thinking clearly. Besides this, she was always in a downcast mood. The pain, of a dull character, hardly ever left her except in the night, or, at least, it did not prevent her from sleeping. It came on without the slightest cause, occupied the entire head and eyes, and was almost constantly accompanied by nausea. It was always aggravated before the menstrual period. The scaleni and trapezius are affected, especially on the left side. In the latter muscle, on the same side, there is a rather extensive myositis, situated near the median line. On the right side this is smaller; it has its seat higher up than the other one, at a finger's breadth from the attachment to the skull. We have to deal here not with a myositis properly so called, but with a resistance with ill-defined outlines, the diseased tissue being gradually transformed into a healthy one. After three weeks massage a small portion of the first named inflammatory deposit remained, and yet the patient

declares not having suffered for several days. Nothing left of the other tumefactions. In a letter which I received from her mother at the end of March 1902, she writes that her daughter is free of pains, and that her character has also quite changed. As much as she was formerly downhearted and sullen, she is now lively and bright. What clearly proves the success, says the mother, is that one of her teachers declared to me yesterday that she is always the first in her class.

Everything favors the belief that—thanks to the influence of nature and her youth—the myositic remnant that I have mentioned has disappeared.

#### OBSERVATION XIV.

*Deeply Rooted Case.—The Symptoms Presenting a Great Intensity.—The Most of the Muscles of the Neck Affected.—On the Left the Deposits Presenting More a Tumefaction than a Real Induration.—Persistent Case.*

M. B—n, auctioneer, 45 years old, had suffered from headaches for 35 years. The pains, of a less violent character until seven years ago, have since that period increased in intensity. They are especially brought on by damp and cold weather. The patient suffers less during the summer. A cold draught is sufficient to provoke the attacks; physical fatigue and especially sitting up late in the evening produce the same results. Likewise moral fatigue and all work requiring an intense application of mind. Thus he has been obliged to give up his favorite pleasure of playing cards for several years. The attack most often begins during the day and sometimes continues during the night. He is sometimes awakened in the middle of the night by great pains, which deprive him of sleep. The head is so sensitive that the patient, fearing to rest it on the pillow, stays up during the night, walking about in his room; he only retires when he is completely exhausted. The attack lasts from twelve to thirty-six hours; the latter only rarely. The pain, which is always acute, sometimes becomes so violent that the patient, as he says, imagines his head is going to split. The right side is more often affected, but sometimes the pain passes to the left inside of a few hours. It begins on a level with the right temple and rapidly extends towards the forehead, the vertex and the nape; from time to time, especially when he is directly exposed to draughts, it begins in the frontal region. The face, and particularly the eyes, become red; the veins become dilated and the face is from time to time covered with cold perspiration. Heat applied directly on the head relieves him

somewhat. Antipyrine, which at the beginning relieved him, has for some time not produced any effect. He derived some advantage from a stay at Aix-les-Bains and Dax. Since last February he takes morphine from time to time.

On the right side I find a large induration in the sterno-cleido-mastoid muscle, near its upper attachment. There is a swelling of the size of a small almond in the lower part of the scalenus anticus. A very hard cord passes obliquely through the trapezius as far as its attachment to the cranium. The upper attachment of the deltoid muscle is swollen and sensitive to pressure, especially in front. The supra-orbital nerve is very sensitive to touch towards the edge of the orbit, where it seems somewhat thickened and appears to be the seat of a perineuritis. The first ganglion of the sympathetic nerve is swollen and painful to the touch. On the left side tumefaction of the trapezius and splenius at their attachments to the cranium.

Treatment by massage was begun May 12, 1894. I was obliged to interrupt the treatment because of my going to Ragatz, in the latter part of June. During the following summer he had only two slight attacks. When at the end of next November, in consequence of the cold weather, he again experienced some pains in the frontal and temporal regions, he came again to see me, requesting me to continue and finish the treatment. After six weeks of massage no more muscular inflammation; the supra-orbital nerve was no longer sensitive to the touch.

Since that time up to the early days of October, 1900, when I saw the patient for the last time, his condition had been most satisfactory. The provoking causes had, however, remained, and among these I shall above all mention draughts, to which he has been so often exposed in the locality where he superintends the sale of horses in Paris (Tattersall). He also suffered several times from influenza, but where formerly he suffered the greatest agony, he now only feels a tendency to pain, as he terms it; moreover, he is again able to enjoy a game of cards without feeling the slightest after effects.



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Norström, Gustaf

Author

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**Traité théorique et pratique du massage.** 2 édition.  
Paris, 1891, 1 vol. in-8°, 672 pages.

**Traitement de la migraine par le massage.** Paris,  
1885, in-18, 121 pages.

**Traitement des raideurs articulaires (fausses ankyloses) au moyen de la rectification forcée et du massage.** Paris, 1887, in-8°, 139 pages.

**Le massage de l'utérus.** Paris, 1899, in-8°, 214 pages.

**Céphalalgie et Massage.** Paris, 1890, in-8°; translated into English and enlarged, New York, 1896.

**Massage dans les affections du voisinage de l'utérus et de ses annexes.** Paris, 1892, in-8°, 141 pages.

**Formulaire du Massage.** Paris, 1895, in-16°, 280 pages.

**Handbook of Massage.** New York, 1896, in-8°, 246 pages.

